



PROJECT FACT SHEET:

MUNSON CREEK

STARTED: 1/21

COMPLETED: 9/22

PROJECT LEAD: OREGON DEPARTMENT OF TRANSPORTATION

PROJECT DESCRIPTION

Munson Creek is a tributary of the Tillamook River south of Tillamook, Oregon. A culvert where Hwy 101 passes over Munson Creek was impeding passage of native migratory fish to upstream spawning and rearing habitat. The 12'x6' concrete box culvert is 57' long and was perched 1' above the outlet pool, creating a partial barrier. This perch may have been a complete barrier for adult Pacific lamprey. During periods of low flow, shallow sheet flow was common throughout the box, creating additional challenges for migrating fish species. The box culvert had exposed rebar and concrete wear from scour on the floor, and was in need of repair. Some small sections of the walls had some erosion as well. This culvert repair project addressed the issues above, without a full replacement of the culvert.

SPECIES + INFRASTRUCTURE

Munson Creek is home to Chinook, Oregon Coast coho, chum, steelhead, cutthroat trout, and lamprey. During construction, 18 adult Pacific lamprey were salvaged downstream of the culvert and placed in the pool habitat upstream of the project. Six other fish species were also relocated out of the project construction area. Improved fish passage here will provide easier access to 4.73 miles of habitat for native migratory fish species.

COMPLETED SOLUTION

The culvert repair included repaving of the invert of the culvert and covering erosion scour and exposed rebar. To address the perch, a 70' roughened channel was built in the channel up to the culvert invert, eliminating the jump. Weirs were placed in the culvert to reduce velocities and increase depths. The weirs are rounded to better allow for Pacific lamprey migration. A low flow channel was created through the box during repairs to the invert.

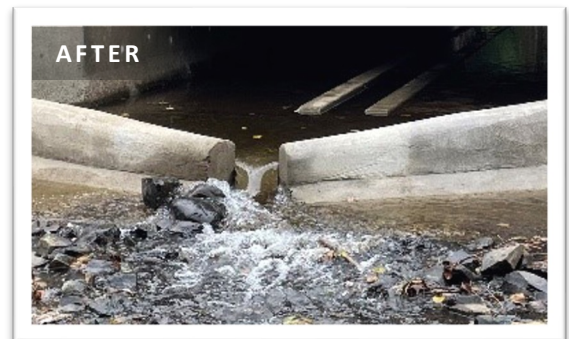
ODOT also completed a similar project where OR130 crosses Small Creek. Improvements including a roughened riffle installed downstream of a 48" CMP to alleviate an 18" perch, and rounded corner baffles installed in the barrel to reduce velocity and increase depth will improve access for coastal cutthroat, winter steelhead, coho salmon and Pacific Lamprey to 0.93 miles of habitat upstream.

COST + FUNDING

TOTAL PROJECT COST: \$175,000
ODOT Fish Passage and Major Culvert Maintenance Programs



BEFORE: The culvert at Munson Creek had a 1' perch that impeded native fish passage.



AFTER: The repaired culvert replaced the 1' barrier and exposed rebar with a roughened channel with rounded weirs placed to reduce velocity, increase depth and ease fish passage.

BENEFITS ACHIEVED

- Improves access to 4.73 miles of anadromous fish habitat for Chinook, Oregon Coast coho, chum, steelhead, cutthroat trout, and lamprey



MUNSON CREEK

CULVERT IMPROVEMENT

